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DEPARTMENT OF NATURAL RESOURCES

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Outgoing
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#3997
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April 20, 2012

David Hibbs, Resident Agent
Genwal Resources, Inc
P.O. Box 910
East Carbon, Utah 84520-0910

Subject: Construction of Burma Evaporation Basin, Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032, Task #3997

Dear Mr. Hibbs:

The Division has reviewed your amendment to construct an evaporation basin that will be utilized in the disposal of the generated iron sludge material at the Crandall Canyon mine-water treatment facility.

The Division has determined that there are outstanding issues that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met. The outstanding issues are listed as an attachment to this letter. Please revise the amendment accordingly and re-submit to the Division no later than June 4, 2012.

Sincerely,

Daron Haddock
Coal Program Manager

DRH/SKC/ss
cc: Price Field Office
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Outstanding Issues

Task No. #3997

Construction of Burma Evaporation Basin

The members of the review team include the following individuals:

Priscilla Burton (PB)
Steve Christensen (SC)
Joe Helfrich (JH)
Ken Hoffman (KH)
Angela Nance
James Owen (JO)

R645-303-313.100 requires that the applicant submit a statement that no prime farmland exists. (PB)

R645-301-231/100, The plan should outline on a map the area designated for boulder removal and topsoil salvage. (PB)

R645-301-231.400, The topsoil storage pile should not be triangular in cross section, but trapezoidal. (PB)

R645-301-536.320, A sampling and monitoring plan for the waste should be developed to be conducted at five year intervals (mid-term) or with every 7.5 inches of waste deposited. Grab sampling of the waste should be monitored in accordance with 40 CFR 264.13 and with the parameters described in the Division's Guidelines for Topsoil and Overburden, Tables 3 & 7. (PB)

R645-301-536, the plan should provide for depth measurement of the iron precipitate layer every five years, occurring during the mid-term review. (PB)

R645-301-542.730, Upon final reclamation, the first 18 inch lift should be incorporated into the mine waste with ripping or other tillage. In this manner, the waste will be incorporated into the soil and will not create a chemical or physical barrier to roots, promoting revegetation success. (PB)

R645-301-244, The type and quantity of wood fiber mulch (hydromulch) should be specified. (PB)

R645-301-242, Redistribution depth of the 1,137 cu yd topsoil will be six inches over the 1.41 acres as described in (Chap. 2), however, Chap. 3 indicates that the topsoil will be re-spread to a depth of 12 inches in item c. Please make the appropriate correction. (PB)

R645-301-234.230, Use of surface mulch to provide protection and vegetation establishment on the topsoil stockpile is described in Chap. 2; however the quantity per acre should also be described. (PB)

R645-301-232.400: The permitted area is 7.32 acres; however the proposed disturbed area is 1.41 acres. The plan should describe interim reclamation of the land which will not have topsoil removed, but which may be affected by equipment moving boulders and topsoil to storage locations. (PB)

R645-301-112: The Permittee must revise page 1-1 of the amendment to identify the new resident agent for Genwal Resources, Inc. As Mr. David Shaver is no longer employed by the company, a new resident agent must be identified. (SC)

R645-301-117.200: The Permittee must submit a copy of the Emery County Progress affidavit of publication (dates of publication February 14th, 2012 thru March 8th, 2012) for incorporation into the MRP. (SC)

R645-301-120: The application has been submitted as a standalone document and should be correctly formatted in accordance with the R645 regulations. (JH)

R645-301-320: The application needs to include a vegetation map for the proposed disturbance that delineates the dominant vegetative community, (Pinyon/Juniper). (JH)

R645-301-322: The proposed disturbed area includes high value habitat for Elk, Mule deer, Black bear and Ferruginous hawks. The application should include maps for these species that clearly delineate their habitat. The application should also include raptor survey data and maps for any potential nesting raptors within ½ mile of the proposed disturbed area. (JH)

Any mine water consumption that may affect the four endangered fish species listed needs to be addressed in terms of mine water consumed in acre feet per year. There are two questions that need to be answered here: the first being has the Permittee previously determined the amount of mine water consumption in acre feet per year for the Crandall mine? If so that information needs to be included in the application, and the second will there be an increase of 10% or more resulting from the installation and operation of the evaporation pond? (JH)

R645-301-411: The applicant needs to address the Land-Use section of the regulations. (JH)

R645-301-411: The application should include a statement about the presence or absence of public parks and historic places within the proposed disturbed area. (JH)

R645-301- R645-301-244: The application should include an Air Pollution Control plan for the evaporation pond. [JCH]

R645-301-322, -301-333, -301-342, -301-358: The application needs to include a protection and enhancement plan for the proposed disturbed area. The Division of Wildlife Resources typically requires a 4/1 acre ratio of mitigation to disturbance. There may be areas

near and adjacent to the proposed disturbed area where vegetation treatment could be implemented. (JH)

R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275: The application needs to include information as required about the post mining land uses of the proposed disturbed area. (JH)

R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284: The application must address the following sub headings of the regulations:
Revegetation: General Requirements,
Revegetation: Timing,
Revegetation: Mulching and Other Soil Stabilizing Practices and Revegetation:
Standards for Success. (JH)

R645-301-722.2: The application shall also include language the Permittee has fulfilled all requirements of the Department of Environmental Quality in relation to a Utah Pollutant Discharge Elimination System (UPDES) permit. (KH)

R645-301-722.300 & 400: The Permittee shall provide a map showing the locations used to gather baseline data and the location and depth of water wells surrounding the site or add a note to Drawing 3 that no water wells are located within a certain radius. (KH)

R645-301-724: The Permittee shall submit baseline groundwater and surface water data as part of the application. (KH)

R645-301-724.100: The Permittee shall include the location and ownership for the permit and adjacent areas of the existing wells, springs and other ground-water resources, with seasonal quality and quantity of ground water, and usage. (KH)

R645-301-724.200: The Permittee shall include the name, location, ownership, and description of all surface water bodies within the proposed permit and adjacent areas and information on surface-water quality and quantity. (KH)

R645-301-724.310: The Permittee shall determine the extent to which a ground-water monitoring plan is necessary and discuss the determination in the application. (KH)

R645-301-724.310: The Permittee shall determine the extent to which a surface monitoring plan is necessary and discuss the determination in the application. (KH)

R645-301-724.310L: The Permittee shall include a determination that the evaporation basin will never discharge to surface water by way of infiltration. (KH)

R645-301-724.320: The Permittee shall provide a determination that the proposed reclamation will prevent material damage to the hydrologic balance outside the permit area. (KH)

R645-301-724.400: The Permittee shall include climatological factors including: the average seasonal precipitation; the average evaporation rates, the average direction and velocity of prevailing winds; and, seasonal temperature ranges. (KH)

R645-301-728: The Permittee shall conduct a complete probable hydrologic consequences (PHC) determination. The PHC shall particularly evaluate the existing groundwater resources and concentration of metals. (KH)

R645-301-728.320: The Permittee must evaluate whether the dried product is a toxic-forming material which could result in ground-water contamination. (KH)

R645-301-731: The Permittee shall list all State-appropriated water rights located within the proposed permit area in addition to those located adjacent to the proposed permit area that may be impacted by the project. The listing shall include the water right number, location, quantity, and beneficial use. (KH)

R645-301-731: The Permittee must provide a plan for use of an engineered cover; or removal of the solids and liner shall be added to address possible underground ponding due to use on an engineered liner. (KH)

R645-301-731.710: The Permittee shall include the locations of water-supply intakes for current users of surface waters flowing into, out of, and within a hydrologic area, and those surface waters which will receive discharges from affected areas in the proposed permit area. (KH)

R645-301-742.225.2: The Permittee shall include language committing to retaining the capacity for a 100-year 24-hour storm event at all times. (KH)

R645-301-743.130: The Permittee must provide a spillway design for the proposed evaporation basin (i.e. either a combination of principal and emergency or a single spillway that meets the requirements of R645-301-743.131, -743.131.1, or -743.131.2). (KH)

R645-301-745.111: The Permittee shall use an engineered liner for protection of groundwater from leachate and additional sampling shall be conducted to evaluate the dried fill to evaluate long term leaching parameters. (KH)

R645-301-746.221: Language will be added to the description and narrative to establishment of suitable vegetation upon reclamation. (KH)

R645-301-746.340 The Permittee shall include a method by which to field evaluate the remaining freeboard to confirm that the 100-year 24-hour capacity is remaining. The Permittee shall include an inspection program for use during months with precipitation to confirm the 100-year 24-hour capacity is remaining. The Permittee shall include a cleanout plan to be used at any time the capacity is less than the 100-year 24-hour storm event. The cleanout plan must include liquids removal and solids removal as either maybe required during the life of the basin. (KH)

R645-301-760, -761, -762.100, -762.200, -763, -764 and -765: The Permittee must address the Reclamation requirements relative to hydrology. (KH)

R645-301-112.330: Murray Energy Corporation Ownership and Control Informaiton

1. The AVS database shows **John R. Forrelli**, as **Senior Vice President** with a Begin Date of 11/01/10. The MRP shows John R. Forrelli as a Vice President with a Begin Date of 09/11/07 (which happens to be consistent with his listing under Coal Resources, Inc. – leading me to believe this is possibly a typo). *Please address this discrepancy by either updating the information in the MRP or by indicating in a letter that AVS should update their database to reflect the information showing in the current MRP.* (AN)
2. The AVS database shows **Micheal O. McKown**, **Senior Vice President** (HR & Legal) with an End Date of 04/08/11. This End Date is not in the current MRP. *Please address this discrepancy by updating the information in the MRP.* (AN)

R645-601.542.200 The applicant must provide a reclamation plan, details, maps, etc for backfilling and grading and include a commitment to achieve approximate original contour (AOC) restoration at final reclamation. The applicant may include a reference to the appropriate section of the approved MRP to comply with this requirement. The reference must clearly define the reclamation plan details that will apply to the Burma Basin. (JO)

R645-601.542.100 The applicant must include a commitment to reclaim the basin according to and along with its approved reclamation timeline, subject to change based on whether or not discharged mine water requires treatment. (JO)

R645-301-830.140. The mine has adequate bond in place to allow for construction of the basin. However, the applicant must submit updated bond calculation spreadsheets for demolition, earthwork, revegetation, and bond calculation summary. These will be incorporated into the bonding section of the mine's MRP and will not need to be included with the Burma Basin attachment. Detailed updates to the appropriate bond calculation spreadsheets will support the unit cost assumptions and calculations made in the application, as well as address discrepancies between the applicant and the Division in terms of total estimated reclamation cost of the basin (the Division's estimation based on the provided unit costs is lower than the applicants). (JO)